

Notice of Allowability

Application No.

10/055,373

Examiner

Mark Ruthkosky

Applicant(s)

FUKUDA ET AL.

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/22/2004.
2. ☒ The allowed claim(s) is/are 3,4 and 8-11.
3. ☒ The drawings filed on 25 January 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Mark Ruthkosky 8/11/04

Mark Ruthkosky
Primary Patent Examiner
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DETAILED ACTION

Claim Rejections - 35 USC § 102

The rejection of claims 1, 2, 5, 6, and 7 under 35 U.S.C. 102(b) has been overcome by the applicant's amendment.

Allowable Subject Matter

Claims 3-4 and 8-11 are allowed. The following is a statement of reasons for allowance.

Instant claims 3-4 are to a method of manufacturing a sintered substrate for an alkaline storage battery comprising the steps of mixing particles made of nickel or principally of nickel with a pore-former in the form of particles having a coating made of nickel or principally of nickel and sintering the porous substrate and the applied mixture. The fore-forming material includes an element that has an effect of lowering the sintering temperature of the nickel including P, B, and In.

Newly added claims 8-11 are to a method of manufacturing a sintered substrate for an alkaline storage battery comprising the steps of mixing particles with a pore former and applying the mixture to a porous substrate, wherein the particles are made of nickel or principally of nickel and the pore-former is provided in the form of particles each having a coating made of nickel or principally of nickel and a second step of sintering the porous substrate and the applied mixture, wherein each of the pore former particles used in the first step has a hollow space that is filled with a hydrocarbon with a low boiling point, such as butane and methane.

The most pertinent prior art has been presented. The prior art teaches method of manufacturing a sintered substrate for an alkaline storage battery comprising the steps of mixing particles made of nickel or principally of nickel with a pore-former in the form of particles having a coating made of nickel and sintering the mixture on a porous substrate. The prior art does not teach a method of manufacturing a sintered substrate for an alkaline storage battery comprising the steps of mixing particles made of nickel or principally of nickel with a pore former provided in the form of particles each having a coating made of nickel or principally of nickel, applying the mixture to a porous substrate, and sintering the porous substrate and the applied mixture, wherein each of the pore former particles used in the first step includes 1) an element that has an effect of lowering the sintering temperature of the nickel or 2) has a hollow space that is filled with a hydrocarbon with a low boiling point, such as butane and methane. Hideki Matsui (JP 61-034,861) teaches a method of manufacturing a sintered substrate for an alkaline storage battery comprising the steps of mixing particles made of nickel or principally of nickel with a pore-former in the form of particles having a coating made of nickel and sintering the mixture on a porous substrate. The pore forming material may be an organic material and is sintered from the electrode. An alkaline battery is noted which inherently includes a positive electrode, a negative electrode and a means for separating the electrodes. Matsui (JP 61-034,861) does not teach adding an element that has an effect of lowering the sintering temperature of the nickel. The instant application shows that the addition of an element that has an effect of lowering the sintering temperature of the nickel provides a substrate with a greater strength than a substrate prepared without the additive (pg. 17.) As such, these claims are allowed over the prior art.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Ruthkosky whose telephone number is 571-272-1291. The examiner can normally be reached on FLEX schedule (generally, Monday-Thursday from 9:00-6:30.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free.)

Mark Ruthkosky
Primary Patent Examiner
Art Unit 1745


8/16/04